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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,349

01/08/2008

Michael Kamleiter

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EXAMINER

MENON, KRISHNAN S

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

05/20/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/582,349	<b>Applicant(s)</b> KAMLEITER ET AL.	
	<b>Examiner</b> Krishnan S. Menon	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Claims 1-9 are pending as preliminarily amended on 6/9/06.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 4 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the various fibers or filaments, does not reasonably provide enablement for graphite powder and activated charcoal. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make or use the invention commensurate in scope with these claims.

Applicant's disclosure does not provide any details of how the mono or multi-filaments of graphite powder or activated charcoal is made, and it is not possible to one of ordinary skill to make this without undue experimentation.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

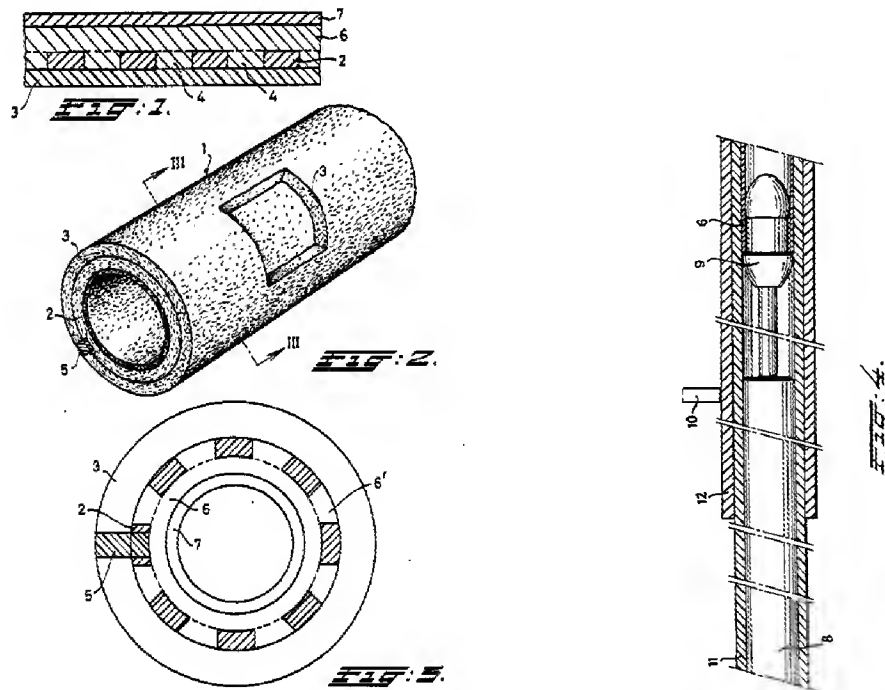
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**1. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ten Hove (US 5,034,129) in view of Shintani et al (US 6,454,942).**

**Ten Hove:** The detailed structure of the composite membrane (Figs 1-3) and the method of making (fig 4) are reproduced herein.

According to fig 4, the process of making the membrane comprises having a woven or knitted tube (11) over Mandrel 8, and then another non-woven, woven or knitted tube (12) slipped over tube 11. The external tube 12 is welded if it is non-woven, but the reference teaches woven or knitted tube as alternative to the non-woven for the external tube 12, and that a weld is not necessary if they are in the form of tubes (column 2, lines 11-15). Membrane of the desired thickness is applied on the inside of tube 11. See column 4, lines 10-29.

Ten Hove does not provide the details of the knitted tubes 11 and 12.



**Shintani** teaches a tricot knitted fabric as membrane support. See figure 1 of Shintani reproduced herein. Tricot fabric provides the knotted “fillet-like connecting lines” transversely linked by threads forming transverse connections. The fillet-like lines are shown by the annotated arrows, and the space between the lines marked by the arrows show the4 transverse connections.

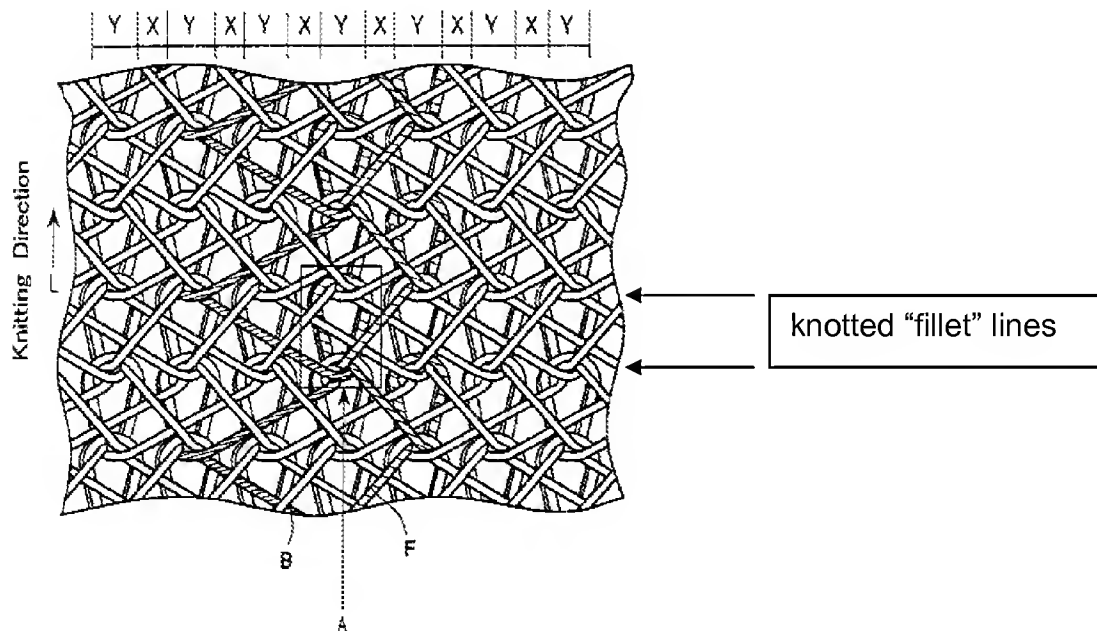


FIG. 1

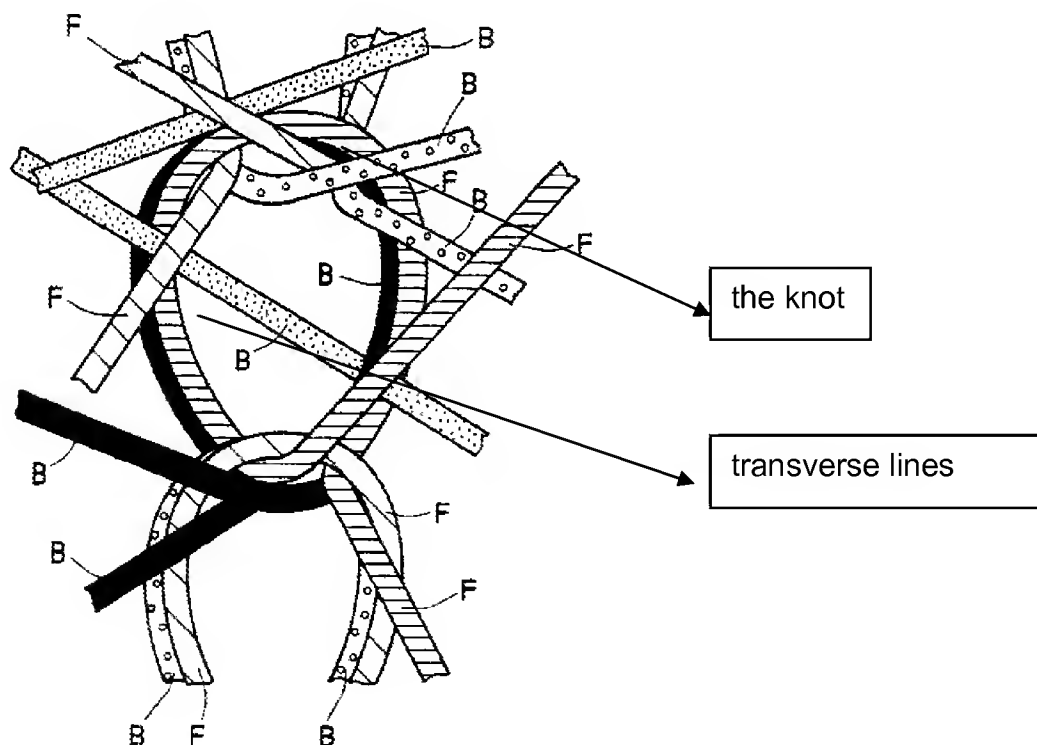
Tricot knit is also well known and commonly used for making tubes (socks, for example).

It would be obvious to one of ordinary skill in the art to use the teaching of Shintani in the teaching of Ten Hove to provide the Tricot weave tubes for the tubes 11

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and 12, because Ten Hove does not provide any particular structure for the woven or knitted tube, which would motivate one of ordinary skill to look at the prior art literature, and also because of the advantages of tricot weave as a membrane backing material, such as its ability to maintain its structure and rigidity, as well as it providing flow channels at the backing. (See Shintani abstract and "Summary of the Invention").

Regarding the dependent claims, the tricot weave is a knit weave, produced by crocheting device, with hooked needles, the "fillet lines" are less permeable than the space between them ; material of the tricot is polyester or similar polymer; the membrane polymers are as taught.



The angle between adjacent transverse filaments are in the range as claimed (see fig 2): this range is sufficiently broad; even if not, it would be obvious to one of

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ordinary skill to select an appropriate weave for the tricot for the desired strength and openness.

The references in combination also teach the teach the tubular membrane as claimed.

**2. Claims 1-9 are rejected under 35 U.S.C. 102(b) as anticipated by or under 35 USC 103(a) as being unpatentable over Stockwell (US 5,359,735) with further evidence from Shintani.**

Stockwell teaches a method of making a coating of a breathable material (a semi-permeable membrane) over a circular knit fabric – a tube of knit fabric. The knit is described as among others, a tricot weave. See column 3, lines 64-69.

Stockwell does not describe the details of the tricot weave. However, such details are taught by Shintani as shown in rejection 1 above. Therefore, it would be obvious, if not anticipated, to one of ordinary skill in the art that the process and the product of Stockwell would be a tubular membrane as claimed.

The details of the dependent claims are also taught by the Stockwell reference, and/or by Shintani.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on 571-272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Krishnan S Menon/  
Primary Examiner, Art Unit 1797